Good Printer's Apprentice Article (Cal?)

Way Topics

LA 99er COMPUTER GROUP

VOL 8 NO. 5 LOS ANGELES CA MAY 1989

Newsletter

TERRIES CORNER

This space almost intentionally left blank.

Yup that is almost the way it was going to be. After my appeal last month, I received one expression of willingness to help, but geographically too distant.

So let us talk about ambivalence and/or lethargy, and also meanness.

It appears to me some of us have developed a love/hate attitude. Love those who have stayed within the community, hate those who chose to move on (for whatever reason), and rail bitterly. The support and encouragement of the former, has been way overshadowed by the nasty attacks on the latter. As we age, so do our children and grandchildren. They are perfect candidates to replace our dearly departed talented programmers. If the energies spent on berating the "lost" ones were channeled positively towards the new, there would be a lot to be proud of.

Ambivalence, well lots of people like lots of things happening, as long as someone else does them. How about burnout you all? Haven't enough workers dropped by the wayside because of lack of actual support? If the system starts to wear down, it is NOT the fault of the current doers. If you are one of the myriad of takers, any chance of a switch of roles? Try it you might like it.

In no way am I speaking to only LA 99ers. We certainly are loyal to the community, and more than maintaining our membership. Meetings are still reasonably well attended, usually over 30 members. New people are regularly contacting us as a result of LA Times meeting notice and Computer Shopper listing. The community at large seems to be treading water at this moment. Any suggestions or solutions? This space is open to comments and/or rebuttals.

Communications networks used to be fun and a good place to exchange ideas. I personally stopped spending my money after direct frontal attacks. Sysops were remiss in monitoring this. So I am gone, as are several others. I recently learned the meanness continues. Sad but true.

OH NO! NOT ANOTHER CONTEST!?!?

by Steve Mehr, UG member

It looks like in the field of music the TI is really starting to "show its colors". Be sure to pick up a copy of the disk I submitted to the library at the last meeting to find out exactly what I mean.

* WHAT YOU MAY HAVE MISSED * at the April meeting was a look at the latest from Rodger Merritt. I was able to "obtain" a beta version of one of his up and coming programs (MAG-IT) and, well, let's just say he has a few more "bugs" to swat. Rodger takes a lot of abuse from me (and rightly so) and is a real good sport. What's that Rodger... I'll get mine?... Hum... Uh oh!

Also, we took a look at the latest from Comprodine called GAP. Giant Artist Posters was written by Paul Coleman of Nameloc Software. Comprodine is please to announce that Paul is now also writing for them. GAP, written in c99 for speed, is the first program available of its kind for the TI as it will print TI-Artist instances in several different poster sizes up to 8 feet wide by 5 feet high! If your printer works with TI-Artist (Epson compatible) it will work with GAP. Even if you don't own TI-Artist (WHAT?) you can still use all of GAP's features as all GAP requires is a TI-Artist instance saved as a "full screen" instance, that's it! I imagine User's Group libraries will soon be filling up with disks full of instances to use with GAP. GAP sells for $15.00 + $1.00 for S&H and is only available from:

Comprodine
1949 Evergreen Avenue
Fullerton, Ca. 91635

Okay, contest results. Zippo! Not one entry was received for the Archiver contest. I guess I win even though I wasn't going to consider my entry. If ANYONE sends me ANYTHING archived, I will explain my archive in the next newsletter, as I feel reluctant to do so if no one is interested. Go ahead... make my day!

The NEW CONTEST is as follows: There is a limit to the amount of code allowable when typing in a program line in Extended BASIC. Something to do with the byte count limit of the line buffer. Are you with me so far? Have you ever received the error message "LINE TOO LONG", or had the cursor freeze at the end of the line unwilling to accept any more characters? Okay. FCTN 8 is one trick, but a few more have been discovered! Now here's the contest.

Send me a program which includes the longest single program line you can obtain. The object is to either fill as many screen lines as possible, include as many statements as possible, or both, on one program line. The program line should do more then RANDOMIZE and must include statement separators "::" between each statement. Got it? Now go for it, and as usual send your results to:

Steve Mehr
633 Hollyburne Lane
Thousand Oaks, Ca. 91360
ATTN: Program Line Contest

The entries that surpass all others in each catagory - screen lines, statements, or both - will be considered the winners, and the winners' names will be published in the September newsletter along with an explanation of their entries. Tom Freeman's entry will not be judged in this contest (grin). Sorry Tom. Entries must be received by the end of July. Good luck!

FOUR-A/TALK

Random ramblings about things TI.

by Bill Gaskill

May 1989

AN APOLOGY

I hate to have to admit it, but I lied. In the April issue of FOUR-A/TALK I said that the Genial Traveler Diskazines would be covered this month, but so many other neat things came up that I wanted to share with you, that I have decided to put the GT material off for another month. My apologies to Barry Traver and Four-A/Talk readers.

WHAT'S HOT:

- Art Green's TI-Writer (re-write) V4.2, Texaments MICROdex for TI-Base, Asgard's Legends II and Pro Page 99, Andi Wise's User Group List, Steve Mehr's Fairware List, Mike Wright's Reference List of 99/4A commercial products and Jim Reiss' TypeWriter 99 in a module.

DISCOVERIES:

- Art Green, the Canadian assembly language wizard who wrote the Macro Assembler programs, has released V4.2 of his TI-Writer upgrade. To be real honest with you, I didn't even know that there was a V1.0! None the less, Art has done as neat a job with TIW as he did with Macro Assembler, except that the TI-Writer upgrade is better documented. Or maybe it's that I understand TI-Writer better than I do assembly language. Whatever. Art's TIWV4.2 upgrade is a FairWare offering that is available at yesterday's price of $10. A copy may be ordered from;

RAG SOFTWARE
R.A. Green
1032 Chantenay Drive
Glouchester, Ont.
Canada K1C 2K9

But wait! I'm going to tell you WHY you should send the $10 to Art and get a copy.

1. Like the Mike Ballman, Ed Jones and John Johnson TIW rewrite for the Horizon Ram Disk, Paolo Bagnaresi's BA-Writer, Tom Knight's TK-Writer and the McGovern's FunnelWeb system, the RAG version of TI-Writer has its own loader, so you don't need the TI-Writer module. The RAG loader lists A-Editor, B-Formatter or C-Utility.

2. Unlike the Ballman, Jones and Johnson collaboration, but similar to the McGovern's FunnelWeb system, the RAG version allows you to "install" the program to your system. That means that you can configure the program with your defaults for the;

-printer name.

-screen colors.
-tab settings.
-word wrap on/off.
-line number display on/off.
-defined character set.

3. The Show Directory function shows a catalog display much like the original one in the TIW module, which is a vast improvement over the one used in the BJ and J version.

4. The RAG version has several new commands such as QQ for an immediate quit without further prompting, Ctrl comma to go to the top of the file, Ctrl period to go to the bottom of the file, a PC (printer control) command has been added that allows control codes to be sent directly to the printer without changing the line count. It also allows you to setup a printer without having to use transliterates.

5. You can also define your own underline character, boldface character, required space character and mailing list control character. Art has also added a Conditional Page break option that tells the formatter program to do a page eject if less than a certain number of lines are left on the current page.

6. Perhaps one of the neatest features is the Chain File option that allows multiple floppy disks to be used in the formatter. This means that you can have a file that is hundreds of pages long, on several floppies, and still have the file printed as a single document. The CF option causes TIW to prompt you to insert the next disk and then press <ENTER>. Once that is done, processing resumes. Wow!

7. The formatter program is faster and more compact. In fact, it is only one file in the RAG version instead of two as it is in the original TI-Writer, the BJ and J version, BA-Writer, FunnelWeb etc.

8. Loaders for Extended Basic, Mini-Memory, the original TI-Writer cartridge and the SuperCart are included.

Many other "little" nicities have been added to make the RAG SOFTWARE version of TI-Writer my word processor of choice. It loads and works marvelously from my Horizon Ram Disk, though like all other TIW clones I have, it will not catalog my hard drive. It resists the loss of characters on word wrap better than anything I have seen to date, and it also scrolls text or windows the screen faster than anything I have seen to date, regardless of the size of the file.

I haven't mentioned much about the formatter improvements, but I will say that there are several. I also haven't mentioned the speed with with the program operates in general. Cursor speed is NOTICEABLY quicker as are block operations such as COPY and MOVE. Overall, the program is "smooth". Do yourself a favor and look into the Art Green TI-Writer V4.2. I know that you think a word processor is a word processor and all TIW clones are the same. NOT SO in this case.

NEWS:

- Andi Wise, editor for the newsletter at the Eugene, Oregon 99/4A Users Group, Box 11313 Eugene, Or. 97440, has compiled the most

complete list of 99/4A Users Groups I have seen to date. There are over 500 listings in the data base, both past and present, U.S. and foreign. She really has gone to alot of effort to provide us with this much needed resource. SouthWest 99er BJ Mathis, who also has an excellent UG data base, contributed as an information source to the project. Andi compiled the data base in Mark Beck's Creative Filing System.

Not intending to compete with Andi, I have adapted her data to TI-Base so that TI-Base owners could also have access to the information, in a command file programmed environment. The TI-Base version is available in your club's library (if your club receives Four-A/Talk from me directly). Andi is asking a paltry $5.00 ShareWare fee for her file in CFS format. If you procure the TI-Base version, I ask that you also send her $5.00. Please do not send any money to me for the TI-Base version. Andi did the work and deserves the financial support for her Users Group.

- In case you haven't heard, Asgard's Chris Bobbitt is stirring things up with an offer to support the development of a prototype of the "Next Generation Computer" for the TI Community. From what I have read, it appears that he has lost faith in the Geneve or in Myarc, or has gotten tired of waiting for the Geneve to be a complete machine. It will be interesting to see what comes of it.

- Also from Asgard; I've discovered to my dismay that the first two issues of Asgard News are already out of print. I was a late subscriber and had to start my subscription at Volume 1 Number 3. Rats! If you are interested, Asgard News is available for $9.00 for four issues from;

Asgard Publishing
P.O. Box 10697
Rockville, Md. 20850

- You can expect to see a series of TI-Base tutorials in our own MICROpendium magazine shortly, that will hopefully help you to take full advantage of this marvelous piece of software. The articles will offer all new information on TI-Base, not a rehash of the tutorials that I have given to the various Users Groups in the last year.

- Texaments should be releasing MICROdex for TI-Base this month, if it is not out already. All you TI-Base owners now have a chance to see the first third-party application available for your TI-Base data manager. The MICROdex libraries are available for $14.95 for MICROdex I and $9.95 for MICROdex II or $22.95 for both. Please include $2.50 S/H. MICROdex is available from;

Texaments
53 Center Street
Patchogue, New York 11772
516-475-3480

- I have also just completed a project for Jerry Price of TexComp that produced a really nice, simple tutorial on using the Navarone Data Base Management System. The end product is a professionally printed booklet that leads you through the creation of a publications index, complete with tips on sorting, subfile creation, report definition, extended basic access to DBMS files and more. The package comes complete with a disk that contains a working data base of over 300 records and actual

XB programs for merging DBMS files, counting the number of records in a file and more. TexComp can be contacted at 818-366-6631 if you are an interested Navarone DBMS owner.

- Steve Mehr has taken over the management of Dick Altman's FaireWare List that was started back in 1985 or 1986. Steve offers the list for a reasonable $2 materials fee to anyone desiring a copy. His address is;

Steve Mehr
633 Hollyburne Lane
Thousand Oaks, Ca. 91360

- Back to Asgard again. Legends II, the sequel to the original Legends game released by Asgard back in April of 1987, is now in beta testing and should be available within 2-3 weeks. Another exciting product that should debut at the Ottawa Faire is Pro Page 99 by Ed Johnson. According to Chris Bobbitt, Asgard president, Pro Page will let you compose a full 8 1/2" X 11" page at once, with up to 28 pictures of any size on the page, and they may be placed anywhere you want. Also, both large and small type fonts for text will be supported as well as line drawing. Utilities to convert TI-Artist fonts and instances into Pro Page format will be included, with other conversion utilities planned for Picasso to Pro Page 99 format also. Wow! The newsletter editors out there ought to have a field day with this product. Of course it does column layout of text files too, as well as importing and exporting of TI-Writer DV/80 files.

- In case you haven't noticed, Jim Reiss' TypeWriter 99 is now available in the latest TRITON catalog, in cartridge form. Triton's number is 1-800-227-6900.

TI-99/4A REFERENCE LISTS:

You will recall from the March 1989 FOUR-A/TALK that I discovered Mike Wright's TI-99/4A Reference Lists while at the Fest-West in San Diego. Because I had to leave Sunday morning, and didn't get to spend the whole weekend there, I just barely noticed Mike's product in the Genial ComputerWare booth in a last minute sweep of the Fest before leaving. I bring the topic up again, after having read and re-read the lists, because I am convinced that they are the most complete, and the most professionally presented resource of their kind available to the 99/4A community. At $5.00 plus a couple of dollars to cover the cost of shipping and handling, they are a bargain. There must be hundreds of hours of research invested in them to come with the 40 plus pages of laser printed information, all of which has been verified by actual product. The list also contains the most complete and accurate description of books for the 99/4A I have seen since Barry Traver's list. If you are a 99/4A enthusiast, you WILL WANT the TI-99/4A Reference Lists by Mike Wright, 45 Centerville Drive, Salem, New Hampshire 03079. Honest!

THIS MONTH IN 4A HISTORY:

1981:

99ER Magazine publishes it first issue. It begins as a bi-monthly

publication.

-CIN-DAY Users Group forms with Larry Morrow as president.

-Creative Computing reviews Extended Basic prototype.

-Bugs are found in the newly released Extended Basic module from TI (v100).

-The third issue of the British TIHOME TIdings magazine puts the TI User Group membership figure in U.S. at 6000.

1982:

Electronics and Computing magazine puts a twelve page TI-99/4 supplement in the May issue.

-TI and Control Data Corporation reach a May 6 agreement that allows Texas Instruments to secure the rights to 108 of the 500 available PLATO modules for use on the 99/4A.

1983:

Plans to introduce the TI-99/2 (a low end, 4.2K RAM competitor to the TIMEX-Sinclair computer) are cancelled after prices for the 99/4A fall to a point where they encroach upon the 99/2's target market.

-Plans to produce the ET game module and the disk-based educational series by the Minnesota Educational Computer Consortium (MECC) are cancelled.

-Cheryl Whitelaw, aka C. REGENA, begins writing the "A Woman's View" column for Enthusiast 99, the official publication of the International 99/4 Users Group.

-Forty TI-99/4A computers are used to open the Computer Discovery Center at Magic Mountain in Valencia, Cal.

1984:

Home Computer Compendium becomes MICROpendium.

-Corcomp releases the 9900 and 99000 expansion systems. A DS/DD disk controller card is offered.

-Charles Ehninger, creator of Futura Software, is profiled in the National 99er Users Group newsletter.

1985:

ADVANCED DIAGNOSTICS is released by Craig Miller.

-Navarone Industries releases its PAINT 'N PRINT program.

-CHARACTER SETS and GRAPHIC DESIGNS is released by David Rose.

1986:

*In the United Kingdom, TI*MES magazine sponsors a national show in LEEDS. Among the many UK users, attendance also includes a 99er from as far away as Ottawa, Canada and another 99er from across the English channel in Holland. Dedication, huh?*

-Britain Harry Pridmore introduces 4/FRONT, a TI-99 magazine on disk or cassette.

1987:

CONSOLE CALC, the first (and to date the only) spreadsheet written for the 99/4A that is totally in a cartridge, is reviewed in MICROpendium. It receives a mediocre review due to limited formula creation capabilities and faulty error handling.

1988:

Release of TI BASE data base manager announced by Texaments.

TRIVIA:

Did you know that...

-The Peripheral Expansion Box project ordered by Don Bynum, designed to do away with the cumbersome chained peripherals setup of the 99/4, was officially completed in January 1982?

-In December 1983 Louisville, Colorado 99er Jim Robinson tried to start the International 99/4A Users Group complete with a bi-monthly newsletter named 4A Forum? I never heard of it again, but that doesn't mean it didn't succeed. Has anyone else heard of it or been a member?

-AtariSoft once listed Robotron: 2084, Stargate and Super Storm in their advertisements as being available for the 99/4A? They certainly showed us a lot of support after the "bailout" by TI, but I have yet to run across those titles in a 99/4A retailer's catalog or anywhere else. Mike Wright's TI-99/4A Reference Lists don't show them either.

-Charles LaFara's International 99/4 Users Group published only seven issues of Enthusiast 99, despite being in existence from September 1980 until May 1985? The magazine issues were May, July, September and November 1983, and January, March and a May/June 1984 issue.

-While most of us are familiar with four of the product designators used with the 99/4A line of computers, TI actually had seven of them? PHA-Accessories, PHD-Diskettes, PHL-Libraries, PHM-Modules, PHP-Peripherals, PHT-Cassette tapes and PHV-Value packs.

-Bill Bies, author of the Zaxxon clone "Arcturus", also wrote a Centipede clone named "Arthropod"? Wonder what Bill is doing these days? Sure would like to see him back amongst the active 99ers.

-The hottest 99/4A joystick today is the Epyx 500XJ. TexComp's Jerry Price advises that it has the most advanced design of any joystick available. It ought to really make MunchMan turn those corners. I bought one but don't have it yet. I'll let you know.

CONT. PAGE 16

Did you know that...?

by Chick De Marti MAY 1989

FAST DIAL with FAST-TERM

If you are using FAST-TERM, and have an auto-dial modem, having it get you on-line can be super-fast. All you need to do is create a D/V80 file without control codes.

Load TI-Writer or it's substitute and while in EDIT mode, press Ctrl 0 to disable word-wrap, then type:

"ATDP2788155" (for pulse dialing) or "ATDT2788155" (for touch tone).

Save the file under the name, "DSK1.SENDFILE". Put this file on your disk with FAST-TERM. Next time you load FAST-TERM, at the point you would normally dial, or type in the phone number, just hit 'FCTN'. FAST-TERM will get your number off the disk and do the dialing for you.

(Thanx SCCG "The Computer Voice")

~~~~~~~~~~~~~~~~~~

TI-Writer Hints

To reposition the cursor at the beginning of you text, press Fctn-9 and "S" and <ENTER>, then "1" and <ENTER>. To position the cursor at the end of your text, press Fctn-9, "S" <ENTER> and "E" <ENTER>.

You can delete a file in TI-Writer without going to a disk-manager program. In the command mode, type DF (for Delete_File) and press <ENTER>. When the prompt line appears, type the disk drive number and the file name (e.g. DSK2.FILE), press <ENTER>.

(Thanx North County 99ers U.G.)

~~~~~~~~~~~~~~~~~~

If your program doesn't use sprites, then add this line to your program.

```
1 CALL INIT :: CALL LOAD(-3
878,0)
```

It will increase your execution speed considerably (Thanx BUG News 3/89)

A Kid's Menu:

In several of my MENUs, especially the "Kid's Game Menu", I use:

```
RUN "DSK1.gamename"
```

to allow the child to play a chosen game, and when tired of that game, he is returned to his "Game Menu".

In several cases, strange characters are carried over from one program to another. I cleared each program of the problem as it occurred...but lo and behold, the Master, Jim Peterson, comes up with a 'cure all' (see his "NUTS AND BOLTS Vol 5"). However in my case, instead of putting it "..on each program...", I put it at the start of my "Game Menu". Now the Menu itself does the 'Junk' clean up job. Jim Peterson's routine follows:

```
1000 SUB CLEARALL :: CALL CL
EAR :: CALL DELSPRITE(ALL)::
 CALL SCREEN(8):: CALL CHARS
ET :: CALL MAGNIFY(1)
1001 FOR CH=65 TO 90 :: CALL
 CHARPAT(CH,CH$):: CALL CHAR
(CH+32,"00" & SEG$(CH,1,2)&
SEG$(CH$,15,2)):: NEXT CH
1002 CALL CHAR(96,"00201008",
123,"0018202040202018",124,"0
0101010001010100030080803000
0205408")
1003 FOR CH=127 TO 143 :: CAL
L CHAR(CH,"0"):: NEXT CH
1004 SUBEND
```

NOTE: When using it as I do, at the beginning of a program, I obviously leave out the "SUB CLEARALL" in line 1000 and "SUBEND" in line 1004. (I also reunmbered it 1 thru 5).

Thanx for the idea, Jim

(Did You Know ... cont.)

[These next two items came from the Ninty-niners of Vancouver and have not been personally checked out.]

PC-PURSUIT'S FREE BBS

You do not have to subscribe to use PC-PURSUIT's free BBS. Anyone can use it 24 hours a day. You can learn a lot by calling this system. there are megabytes of free downloads, and a hugh message base, and many hints you can pickup.

Please do not abuse anything that you may find there...lets keep honest so we can continue to get freebies.

To logon:

1) Logon to Telenet
2) At the "@" prompt type: C PURSUIT
2) Follow the on-line instructions

(March '89 Keven J. Coleman)

HOW TO FIND THE TELENET PORT NEAR YOU

1) Switch to 7/E/1
2) Dial 1 (800) 424-9494
3) When connected: press <ENTER> twice.
4) When the display comes up with, "TERMINAL=" just press <ENTER>.
5) It will now ask for your local area code and exchange. Follow the example, it's easy.
6) At this point, the symbol "@"will appear. Type MAIL, press <ENTER>
7) "User name?" will appear, type PHONES and press <ENTER>
8) "Password? will appear. Here type PHONES and press <ENTER>.

That's all there is to it.
(March '89 Keven J. Coleman)

~~~~~~~~~~~~~~~~~

UPDATE to the PC-PURSUIT item

Rates to use PC-PURSUIT have been raised dramatically. Originally the increase was to start May 1st, but due to the anger and the mass exodus of many of the users, the increase was postponed until July 1st 1989.

The rates are:

$30 a month ... for 30 hours
$1.40 an hour for over 30 hours.
Handy-capped people unlimited time
$50 a month for a family of 6...each apparently entitled to 30 hours.

This UPDATE brought to you courtesy of Danny Nelson CALAN (213) 755-7239

~~~~~~~~~~~~~~~~~~

PR-BASE HINTS:

Sorting and so on are based on ASCII strings and everything works according to the ASCII value of the characters. Thus while 4 comes after 2, 22 will come before 4. Use leading zeros on a number you intend to sort...then you will correctly sort 02, 04, 22.

Selective Indexing search works on your input UP TO the first space, so that "good day" will (..sort.) on only "good". To sort (by the whole string) you must insert a question mark, thus "good?day".

(Thanx to the 9T9 newsletter)

NOTE: See "VAL(WORD)" elsewhere in the newsletter, demonstrating the differences in ASCII values of a string when you mix upper and lower case letters.

~~~~~~~~~~~~~~~~~~~~

Yes! TI can use 3.5 inch drives!

"The smaller drives are of equal capacity, with a hard case that is protection from many things..."

A kit is available from:

Alpha Scientific
P.O. Box 626
Chesterfield, MO 63006
Call (314) 878-7117 for prices.

I'm out of coffee,
see you next month

- - C H I C K - -
~~~~~~~~~~~~~~~~~~~~

Did You Know ... Bonus Pages

TI-Writer TIP

MAKING A DEGREE MARK IN TI-Writer

"An owner in Huntsville, Tx.wrote (the author) and asked if I knew how to make TI-Writer type a degree sign on a TI Impact Printer (Epson MX-80) A degree mark isn't a standard ASCII character.." he continues, "The only way I could figure to do it was to combine TI-Writer's transliterate command and the MX-80's graphic ability...I hit on this (idea):

```
.TL 91:27,76,7,0,48,72,72,72,48,0,0
```

This redefines the left bracket to a degree mark. The first two characters (27,76) tell the MX80 to invoke graphics. The next two (7,0) tell it that there will be 7 graphic characters. The last seven define the degree mark."

[This gem comes from Jim Swedlow's TI-BITS Number 15 ... thanx Jim.]

~~~~~~~~~~~~~~~~~

A QUICK SCREEN FULL

by: The Rooster, HV 99'ers

Ever want to fill the screen with a particular pattern? Maybe an opening screen for a program, or some response to a User input? Try this:

```
100 CALL CLEAR
105 FOR TIMES=1 TO 10
110 CALL CHAR(32,"FF7E3C1818
3C73FF")
120 CALL CLEAR
130 GOSUB 2000
140 CALL CHAR(32,"81C3E7FFFF
E7C381")
150 CALL CLEAR
160 GOSUB 2000
170 NEXT TIMES

2000 FOR A=1 TO 50 :: NEXT A
2010 RETURN
```

FROM THE BBSs

Thirty BBS Commandments

(I'll give you 10 this month...CD)

[courtesy of Gil Levitch... Kentucky-Indiana Personal C.U.P.]

1. Thou shalt love thy BBS with all thy heart and all thy bytes.
2. Thou shalt love thy fellow hacker as thyself.
3. Thou shalt remember thy name and thy password.
4. Thou shalt not POST ALL IN CAPS!
5. Thou shalt not use an alias.
6. THou shalt only call a BBS twice a day (at most).
7. Honor thy SYSOP.
8. Thou shalt not covet thy neighbor's password, nor his or her real name, computer, software, nor anything else belonging to him or her.
9. Thou shalt not post messages that are stupid, worthless, or have no meaning whatsoever.
10. Thou shalt use the English language only.

[TO BE CONTINUED....]

~~~~~~~~~~~~~~~~~

Got a programme idea?

[from Gary Christensen BRISBANE U.G.]

Chris Bobbitt, of Asgard fame, is inviting submissions from programmes to added to their catalogue. The support they offer is quite good. Even if you only have an idea for a programme they can help you develope it, or use your idea and write the programme for you if you like. If interested write him.

ASGARD SOFTWARE
PO BOX 10306
Rockville, MD 20850

(more next page)

SOME PROGRAMMING TIPS

TI BITS * Number 7 * By Jim Swedlow

IF THEN IN XB

A number of XB columns discuss alternatives to IF THEN. Here is another. Suppose that A$ depends on the value of I. You might use this code:

```
IF I=1 THEN A$="FRED" ELSE A$="PAUL"
```

A simpler way is to use the SEG$ function:

```
A$=SEG$("PAULFRED",1-4*(I=1),4)
```

This works even if the two variables are different lengths. SEG$ does not produce an error if the length of the new string (the last number)is longer than the source string. If our two names are "PAUL" and "SAM", this works.

```
A$=SEG$("PAULSAM",1-4*(I=1),4)
```

~~~~~~~~~~~~~~~~~~

On the previous pages I mentioned the importance of keeping the data you intend to sort in either all upper case or all lower case. (you could mix the cases as long as you always did it the same way, ie as in Last Names or States.)
As noted in the PR-BASE Hint article sorting is done by using the ASCII value of a word. The ASCII value of "A" is 65, "B" is 66, "C" is 67 and so on. However the ASCII value of the small "a" is 97. Therefore "SAM" would be listed before "Sam". Whats the big deal? Take these two Sams.

Sam Adams and SAM WALKER

Enter these two names, exactly as displayed in the program "VALUE OF A WORD" and notice the difference. If you enter a name in MIxed CaSe, the program will also show it in ALL CAPS.

```
1 ! SAVE DSK1.VAL(WORD)
2 ! *** VALUE OF A WORD ***
3 ! * by Chick De Marti    *
10 CALL CLEAR
20 DISPLAY AT(12,2):"Just pr
ess <ENTER> to quit"
99 !
100 ! * calculate section *
110 ! -- Calc 1st AS IS ---
120 ! - then in UPPER case -
129 !
130 INPUT "Enter a name:":NA
ME$
140 IF NAME$="" THEN END
150 FOR I=1 TO LEN(NAME$
160 LTTR=ASC(SEG$(NAME$,i,1)
)
170 IF (LTTR<65)+(LTTR>122)T
HEN 190
180 SCORE=SCORE+(LTTR-64)
190 NEXT I
200 PRINT NAME$,SCORE: :
298 ! convert to UPPER case
299 ! -- and print value --
300 FLAG=FLAG+1
310 IF FLAG=2 THEN FLAG=0 ::
 GOTO 350
320 GOSUB 2010
340 NAME$=N$
350 SCORE=0 :: PRINT
360 GOTO 130
999 STOP
1999 REM ---sub routine---
2000 ! convert to UPPER case
2010 N4="" :: SCORE=0
2020 FOR I=1 TO LEN(NAME$)
2030 CODE=ASC(SEG$(NAME$,I,1
))
2040 IF CODE<91 THEN 2080
2050 CH=CODE-32
2060 N$=N$&CHR$(CH)
2070 NEXT I
2080 RETURN
```

```
Xx xX    x  xx    xx  xx  x
  x     xxx  x x x    x x x
  x    X    X  x x     x  xx
```

I'm out of coffee,
see you next month

- - C H I C K - -
~~~~~~~~~~~~~~~~~~

BEGINNING FORTH #12 By Earl Ragnse

FASTER GRAPHICS

Last time I promised to show you how to speed up the graphics. I don't think you will be disappointed. Very shortly after I had published last months screens in the Orange County UG ROM, a couple of years ago, a fellow member, and astute programmer, by the name of Ron David gave me a disk, with little comment, except to look at it. I was not only amazed at his clever graphics, but at their speed. What he had apparently done was to avoid the slowness of Floating Point Arithmetic FPA, by writing his own SIN and COS functions which were very fast because he used integer arithmetic, as I will explain later.

I was so impressed with the speed that I modified some of my graphics programs to use them (see Screens 38-42); What a difference. I found one does pay a price though: isn't that always the way life is? No free lunch. The price is a restriction to integer numbers less than 32768. You say, "Big deal, I never use numbers that big. I have trouble counting that high. "Maybe so, but you do use numbers like 2.7 which is not allowed because it is not an integer. The difference between 2567 and 2568 dosn't seem significant, but I have difficulty considering 1.1 and 1.9 to be equal numbers. But they are equal when using integer arithmetic. Also 32768 is not such a big number, it is less then 181 * 182 and they certainly are not big. Anyway, when I finally figured out how to use Ron's sine-cosine functions and put them into my graphics in place of Forth's floating point arithmetic, all hell broke loose. The weird results were eventually traced to the fact that I was multiplying two numbers, one of which was my loop counter, the other was an incremented parameter. I had never really thought about how big that product got to be. Actually since index I counts the number of dots to make up the displayed figure it could easily get to be be 400 or more. This counter (I in the loop) is sometimes used as the angle and I did have sense enough to know that I had to multiply this by 57.3 (actually 573 10 */) to convert from radians to degrees, because Ron's program works with degrees instead of radians as does FPA. Neither of these seem like big numbers, but their product is larger than integer arithmemic will tolerate.

I won't try to explain all that Ron does in the attached Screens 34-36, mostly because I don't completely understand it myself. But in a nutshell, he has used Forth's capability to define a new defining word SINETABLE, using the compiling word <BUILDS...DOES> which allows him to compile the table of sine values into a word called SINX. SINETABLE has the two digit integer approximations of the actual sine values multiplied by 200.

The values in the table are for integer degrees only. This may irk the precision bent of some people who are used to seeing sine-cosine values printed in tables with 8-10 decimal places and a resolution of at least .001 degrees. Our CRT displays do not require this accuracy. I spent many years using a slide rule which didn't do much better than two digit resolution, and I never heard of any engineering project which failed because of that. Evidently Ron realized that this unwarranted precision was sabotaging the potential speed of the computer.

I modified Screen 36 and wrote Screen 37 to practice with his SIN and COS. I wrote the words .SIN and .COS to examine and verify what the values were. Since Ron stores the values as 200 times the actual value, we must divide by 200. The reason he does this is that sine and cosine values are less than one and hence can't be stored as integers. multiplying and dividing by 200 yields a little better precision than would 100.

The 200 value requires some mental gymnastics. If one divides the stored values by 200, you just get zero, because the result is less than one. Therefore I multiplied them by 100 first so that at least the correct digits could be recognized even if the decimal place is shifted; which is noted by printing "/100" after the values. To use .COS and .SIN, enter an angle, in degrees, then .SIN or .COS. Compare the result with tabulated values or use your scientific calulator. I wrote the word TEST to give a tabular demonstration.

To make the use more straight forward, I wrote *SIN and *COS. To use these words you must insure that the stack contains both a length value and an angle before invoking *SIN or *COS. The * prefix serves both to make unique words and to remind one that the result is a product of function times a length. The length and the angle in degrees must be on the stack with angle on top.

Ron also wrote a word for taking square roots to avoid the slow speed of floating point. I coudn't understand how his definition worked so I wrote my own. (see *SQR, Screen 37). My version has the advantage of providing a better value when dealing with numbers which are not perfect squares. His word of course was faster, but Ron's SQRT, for example, gave

the root of 63 as 7 while mine yields 8 which is closer to the correct value.

Enough talk. lets get to Screens 36-42, the revised graphics are much the same as in 8FORTH #11, Screens 43-47, but certain changes were made to account for integer arithmetic. The word DONUT has been added, which would have been impractical with the slower plotting speed. I urge you to enter these screens and try them.

C U next time; May the FORTH be with U.

```
 SCR #33
 0  ( STACK MANIPULATORS EGR 12/27/87)
 1  : PICK ( n1 -- n2 )  2 * SP@ + @ ;
 2  : ROLL ( nk ... n1 k -- nk-1 ... n1 nk )
 3       DUP 1 = IF DROP ELSE DUP 1 DO SWAP
 4       R> R> ROT >R >R >R LOOP 1 DO
 5       R> R> R> ROT ROT >R >R SWAP LOOP THEN ;
 6  : NIP ( n1 n2 -- n2 ) SWAP DROP ;
 7  : TUCK ( n1 n2 -- n2 n1 n2 ) SWAP OVER ;
 8  : 2DUP ( n1 n2 -- n1 n2 n1 n2 ) OVER OVER ;
 9  : 2DROP ( n1 n2 -- ) DROP DROP ;
10  : 2SWAP ( n1 n2 n3 n4 -- n3 n4 n1 n2 )
11       ROT >R ROT R> ;
12  : 2OVER ( n1 n2 n3 -- n1 n2 n3 n1 n2 )
13       >R 2DUP R> ROT ROT ;
14  : 2ROVER ( n1 n2 n3 n4 -- n3 n4 n1 n2 n3 n4 )
15       2DUP >R >R 2SWAP R> R> ;

 SCR #34
 0  ( BYTE SINETABLE-SINX/200  ROM DAVID)
 1    FORGET IT
 2  : SINETABLE (BUILDS 0 C, DOES> + C@ ;
 3
 4  91 SINETABLE SINX
 5    3 C,  7 C, 10 C, 14 C, 17 C, 21 C, 24 C,  28 C,  31 C,  35 C,
 6   38 C, 42 C, 45 C, 48 C, 52 C, 55 C, 58 C,  62 C,  65 C,  68 C,
 7   72 C, 75 C, 78 C, 81 C, 85 C, 88 C, 91 C,  94 C,  97 C, 100 C,
 8  103 C, 106 C, 109 C, 112 C, 115 C, 118 C, 120 C, 123 C, 126 C,
 9  129 C, 131 C, 134 C, 136 C, 139 C, 142 C, 144 C, 146 C, 149 C,
10  151 C, 153 C, 155 C, 158 C, 160 C, 162 C, 164 C, 166 C, 168 C,
11  170 C, 171 C, 173 C, 175 C, 177 C, 178 C, 180 C, 181 C, 183 C,
12  184 C, 185 C, 187 C, 188 C, 189 C, 190 C, 191 C, 192 C, 193 C,
13  194 C, 195 C, 196 C, 196 C, 197 C, 198 C, 198 C, 199 C, 199 C,
14  199 C, 200 C, 200 C, 200 C, 200 C, 200 C,
15  -->

 SCR #35
 0  ( COMP. CODED SIGSIN - SIN : BY ROM DAVID )
 1  HEX
 2  CODE SIGSIN
 3
 4       04C6 , 0201 , 0168 , 0203 , 00B4 , C1D9 , 0287 , 0168 ,
 5       1501 , 1001 , 3D81 , 0287 , 010E , 1501 , 1002 , 61C1 ,
 6       1000 , 0287 , 00B4 , 1501 , 1003 , 61C3 , 0507 , 1006 ,
 7       0287 , 005A , 1501 , 1002 , 61C3 , 0747 , C647 , 045F ,
 8
 9  DECIMAL
10  : ~SIN  SIGSIN DUP 0< IF ABS  ' SINX + C@ MINUS   ( SINX AD.)
11                           ELSE ' SINX + C@ THEN ;  ( +(0-90) )
12
13
14
15  -->

SCR #36
 0  ( COMP. CODED COSINE - COS : BY ROM DAVID / E RAGUSE )
 1  HEX
 2  CODE COSINE
 3
 4       0202 , 010E , 0204 , 005A , C1D9 , 8087 , 1501 , 1002 ,
 5       61C2 , 1001 , A1C4 , C647 , 045F ,
 6
 7  DECIMAL
 8
 9  : ~COS COSINE ~SIN ;
10  : .SIN ( ang) 100 SWAP ~SIN * 200 / 4 .R ." /100" ;
11  : .COS ( ang) 100 SWAP ~COS * 200 / 4 .R ." /100" ;
12  : ! 5 + 10 SWAP AT ;  : ** 30 * ;
13  : TEST CLS 13 0 DO I ; ." COS" I ** 4 .R ."  = "
14       I ~  .SIN LOOP ;
15  : ROM ;

SCR #37
 0  ( SQRT AND OTHER THINGS  EARL RAGUSE 7 2 86 )
 1    34 CLOAD ROM
 2     0 VARIABLE NN ( numb) 0 VARIABLE RT ( root)
 3  : *SQR  DUP NN ! 2/ RT !  8 0 DO
 4       NN @ RT @ / RT @ - DUP ABS 1 >
 5       IF 2/ RT +! THEN  LOOP  RT @ ; ( integer SQR)
 6  : *COS ( u ang) ~COS * 200 / ; ( approx int u * COS deg)
 7  : *SIN ( u ang) ~SIN * 200 / ; ( approx int u * SIN deg)
 8  : R/D ( u --) 355 113 */ 180 / ; ( int RAD per DEG)
 9  : D/R ( u --) 180 * 113 355 */ ; ( int DEG per RAD)
10    CLS 1 12 AT ." APROX *SIN *COS & *SQR LOADED SCR #37 "
11        4 14 AT ." angles are in degrees, try TEST"
12        7 17 AT ." *COS syntax: len ang *COS "
13        7 16 AT ." *SIN syntax: len ang *SIN "  CR  : IT ;
14
15

SCR #38
 0  ( DOT GRAFIK ER 7 86 )   37 CLOAD TEST
 1    FORGET IT ; IT ;  10 VARIABLE Q
 2    CLS 6 12 AT ." LOADING - ain't waiting FUN?"
 3      5 VARIABLE R1  0 VARIABLE XX  0 VARIABLE YY
 4    120 VARIABLE W  90 VARIABLE H   0 VARIABLE Z
 5  : E1 8 9 AT  ." TO EXIT ENTER (PCTN 4) " 1 WAIT ;
 6  : MENU> 1 WAIT TEXT 0 Z ! 42 LOAD QUIT ;
 7  : QUIT? ?TERMINAL IF MENU> THEN ;
 8  : H1 GRAPHICS2 -1 DCOLOR ! 0 DMODE ! 1 SCREEN ;
 9  : H2 1 R1 +! ;
10  : H3 R1 @ Q @ *COS  W @ + XX ! ;
11  : H4 R1 @ Q @ *SIN  H @ + YY ! ;
12  : H5 H3 H4 XX @ YY @ ;  : H6 H5 DOT ;
13  : H7 TEXT 10 7 AT ." DOT GALAXY NO. " Z @ . E1 ;
14  : H8 H1 80 Z @ * 0 DO I 617 MOD 573 10 */
15       Q ! H2 H6 QUIT? Z @ QUIT? +LOOP ; -->
```

```
 SCR #39
 0  ( EXPERIMENT IN  GRAPHICS 7 86 )  DECIMAL
 1    33 CLOAD 2ROVER
 2  : HOT  5 R1 ! 1 Z +! H7 H8 1 WAIT MYSELF ;
 3  : GALAXY ( Z --) Z ! 5 R1 ! H7 H8 MENU> ;
 4    0 VARIABLE R2
 5  : X W ! ; : Y H ! ;  : LOC 120 W ! 90 H ! ;
 6  : ICIR R1 ! 0 Q ! H5 ;
 7  : CIRC 91 0 DO H5 2ROVER
 8      I 4 * Q ! LINE QUIT? LOOP ;
 9  : CIRCLE ( u --) H1 ICIR CIRC LOC MENU> ;
40  : C CIRCLE ;
11    -->
12
13
14
15
```

```
 SCR #40
 0  ( EXPERIMENT IN  GRAPHICS BGR 7 86 )
 1    CLS 12 12 AT ." PaTieNcE PleaSE!"
 2  : INIT 35 X 80 Y ;
 3  : SHFTH  35  H +! ;
 4  : SHFTV  35  W +! 80 Y ;
 5  : JOT1  3 1 DO 20 ICIR CIRC SHFTH LOOP ;
 6  : JOT2  7 1 DO JOT1 SHFTV LOOP ;
 7  : JOT CLS E1 H1 INIT JOT2 LOC MENU> ;
 8
 9  : RADIUS DUP R2 ! Z @ *COS 120 + W !
10             R2 @ Z @ *SIN 90 + H ! ;
11  : DONUT  H1 376 0 DO I Z ! 50 RADIUS
12         20 ICIR CIRC 6 +LOOP MENU> ;
13    -->
14
15
```

```
 SCR #41
 0  ( LINE SPIRAL GRAPHIC ER 7 6 86 )
 1    CLS 13 12 AT  ." ALMOST DONE!" CR
 2  : H1 TEXT 12 7 AT ." DOODLE NO. " Z @ . CR E1 ;
 3  : G1 H2 H3 H4 XX @ YY @ ;
 4  : G2 H1 G1 2DUP DOT ;
 5  : *PI 629 MOD 572 10 */ ;
 6  : G3 G2 80 Z @ * 0 DO G1 2ROVER I *PI
 7      Q ! LINE QUIT? Z @ +LOOP ;
 8  : FIG  LOC 5 R1 ! 1 Z +! H1 G3 2 WAIT MYSELF ;
 9  : NEWTON  Z ! 5 R1 ! H1 G3 1 Z ! MENU> ;
60  : N NEWTON ;  : G GALAXY ;  : D DONUT ;
11
12  -->
13
14
15
```

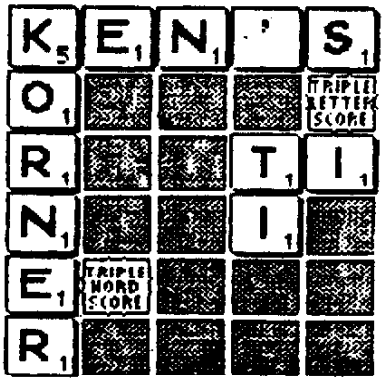
```
 SCR #42
 0  ( GRAPHICS  INSTRUCTIONS) CLS DECIMAL
 1    3 3 AT ."         TO DRAW A CIRCLE "
 2    3 4 AT ."      OF RADIUS R CENTER @ X,Y "
 3    3 5 AT ."    DEFAULT IS AT CENTER SCREEN "
 4    3 7 AT ." ELSE, ENTER X COORDINATE THEN X  "
 5    3 8 AT ."       ENTER Y COORDINATE THEN Y "
 6    3 9 AT ."       THEN PRESS <ENTER>. "
 7    3 11 AT ."    NEXT ENTER THE CIRCLE RADIUS "
 8    3 12 AT ."       THEN <CIRCLE> <ENTER> "
 9    3 15 AT ." ELSE JUST FOR FUN TRY <JOT>, or "
10    3 16 AT ." <HOT>,<n GALAXY>,<FIG>,<n NEWTON>,"
11    3 17 AT ."     or <DONUT> THEN <ENTER>. "
12    2 19 AT ." (C=CIRCLE, G=GALAXY, N=NEWTON, D=DONUT)"
13    CR
14    QUIT
15
```

TRIVIA, CONT.

-Cities named DANVILLE out number all other community names in the number that have 99/4A Users Groups. Yep! There is a joke out here in the west that no matter what state you go to west of the Mississippi River, you will find a body of water named Beaver Creek. It must be the same kind of thing for towns named Danville. There are four Danvilles, the Danville 99ers in Kentucky, the East Central Illinois Users Group in Illinois, the Southside 99/4A Computer UG in Virginia and the Susquehanna Valley 99ers in Pennsylvania. The next most common community name seems to be Springfield, with groups in Illinois, Missouri and Virginia.

-Aside from the Danvilles and Springfields, there are some other interesting community names where 99/4A User Groups can be found. How about Red Deer, Whitefish, Horseheads or Papatoetoe for starters?

Until next time...



A TUTORIAL

SFV 99ERS Courtesy

by KEN GILLILAND

This tutorial is for the benefit of the users of the TI-994a and TPA Software series. This article may be reprinted for non-profit purposes provided proper credit is given to it's author. The font types used in this masthead are from ASGARD Software's "ARTIST FONTS, Vol. I", which were also created by the author. And yes, this entire Tutorial was done using TPA!

Part II: The Mystery of the Externfile and the Deep Secrets of the Continue? Menu

PRINTER APPRENTICE and TPA TOOLBOX were written by Mike McCann of McCann Software and are, in my humble opinion, the best desktop publishing tools on the market for the 99. If you can't find a copy then order direct from McCann Software at P.O. Box 34160, Omaha, NE 68134. I also believe many of the user groups, vendors and catalogs carry them for sale. I'm not really sure of the current price for these programs.

Okay, now that we know what programs we're talking about and where to get them, let's get cracking with Part 2 of my monthly tutorial...

Last month we covered how to print a message using the jotter on the printer. If you don't remember how to do that, re-read last months' tutorial. If you're lost and just don't have last months' tutuorial then send a SASE, specifying the tutorial number and send it to: Ken Gilliland, 7647 McGroarty Street, Tujunga, CA 91042, and I'll send you one. Okay, now on to the easy 1-2-3 steps!

The true key to the TPA (The Printers' Apprentice) is its' externfile abilities. By saving graphics, headlines and text into externfiles, you will be able to mix them throughout the page. The secret to successfully externing is blank disk space, careful preperation and time (lots of it!).

1. Prepare some blank disks. One will probably do if you're DSDD, do two if your SSDD or DSSD, and you guess it, three or four if your SSSD. Also prepare some text you want in TI-Writer, Funnelweb or whatever you're using for a word processor and save it as a DIS-FIX 80 file. Also, for this tutorial try to make it about 20-30 sectors in length.

2. Okay, next step. On a disk, copy an OU prefixed font file and the text file you created. Now is the time for some important considerations. Do you have more than one disk drive? If so, you are okay but if you have only one drive and are SSSD... you have your work cut out for you. Why? When externing, three files will be accessed (or two, if you are using the Jotter). These files are the textfile (the DIS-FIX 80 file you are attempting to Extern), the fontfile (the font file you have chosen to extern with) and of course, the externfile (the file you are trying to create). The externfile you write can be quite large (one of the columns you are presently reading is 245 sectors long!) So what does all that mean? It means that when you are externing, let's say a 56 sector text file at a 390 pixel width and 1900 pixel length (that externs out to about 5 columns), you are probably looking at about 1300 sectors! Yikes!
So now let's put this into perspective... Let's say you have SSSD and one drive. You'll need to have the text file, font file and the blank space for the externfile on each of your disks. So 5 columns means 5 disks (and that's no guarrantee that the externfile will even fit on that with a 68 sector OUFONT file and a 56 sector text file (which leaves 234 sectors free!). You may have to break up the

CONTINUED on NEXT PAGE

TPA Tutorial

CONTINUED from PREVIOUS PAGE

full page column into halves, which in turn means 10 disks!) If you are still SSSD, have one drive and want to seriously use TPA, you should seriously look into getting more disk space.
Why have I gone to such lengths to tell you all this? Simply because it's not worth the headache of getting halfway through an externfile and getting a TI FORTH ERROR - OUT OF DISK SPACE, and, ouch!... having to start ALL OVER again.
3. I'll assume you have made your careful preparations and will have the OUsh font file, the text file you created of 20-30 sectors in length and plenty of disk space on the appropiate disks whenever needed. So boot up TPA, select 3. Formetter and let's rock'n'roll...
4. Now that we're safely inside the Formatter, let's first select "V" for Variables. The variables we want are as follows; Prntr Type (E if you have an Epson, G if you have a Genimi), Prnt Dnsy (select "D" for double density), FontStyle (enter an "O", we're going to Oush this time), Linefeed Size through Wrap-Fixed (just press "ENTER" and use the defaults, unless you desperately want to change them), RaggdMcrojust (select "M"), Left Margin (enter default value of "0"), Right Margin (enter "390". That will make the same size columns you are reading now), and finally, Next Breakpoint (enter "1900". That's basically a full page of text.)
5. Now that we made our variable choices, let's select a font! Press "F" for FontType and enter one in. Remember that this time we chose an Oush font, so the only fonts you'll be able to chose are ones with an "OU" prefix. If you are unsure of what fonts are on the disk, press enter to escape from the FontType option and press "D" for a disk directory. Find your font and enter in at FontType.
6. Okay, now select "T" for TextFile and key in the Text file you prepered earlier.
7. Now, press "E" and watch the PrinterType magically turn to Externfile! Enter a filename you want to call your Externfile (other than the name of your Textfile). I suggest, if your textfile is under 10 charcters just adding a "1" to it as so,... Textfile: KEN'STUT, Externfile: KEN'STUT1. Using this method, once you reach the breakpoint at 1900 pixels, you'll be able to name the next file: KEN'STUT2 and the one after that, KEN'STUT3, so on and so forth. This system will also help keep track of what files come before the next.
8. Assuming you have all the right files on the right disks in the right drives, be daring and press "G"o. Your disk drives and controller card will start to go crazy and if all the right things are in the right places, your screen will be blank. Don't worry, that's normal.
9. Now, you should have time on your hands, lots of it (Approximately 10 minutes), make yourself something to eat. Eventually, you will see the infamous "C"ontinue? menu come up with the following options: Continue Variables Fontfile Dir Printfile Terminate. What you'll want to select is "P" for Printfile (See Step 14) but first let's go through the other options. Oh, by the way, if you got the main menu back instead of the Continue Menu then, you are done! Your Externfile was saved in less than 1900 pixels (in length). Try it again, this time with a larger Textfile. If you got an ERROR, shame on you! Check your disk to make sure you have enough blank space as we covered earlier in this tutorial and check to make sure the proper files are on the proper disks.
10. Continue... This will do exactly as it says, continue on making an Externfile. If you were to press "C" now, it would add one line and prompt the Continue again because it has reached that 1900 pixel breakpoint we set. To change the breakpoint you must go to Variables (See Step 11 below). Continue will not overwrite your externfile (it appends to it instead) UNLESS you change the Printfile to the SAME Externfile you were using before (See Step 15 below).
11. Variables... Allows you to change any variables, including the density, line spacing and even the margins!
12. Fontfile... Yes, you can even change Fonts mid-way through your file, just be sure to change the Oush option in Variables if you change to a

CONTINUED on NEXT PAGE

TPA Tutorial

CONTINUED from PREVIOUS PAGE

Sdsh Font, and likewise.
13. Dir... You may want to check your directory to see how big your first file was, and if you have enough room for the next (which will be the same size or smaller).
14. Printfile... This feature allows you to save an externfile and create another. It will ask you if it's okay to change the Printfile (aka Externfile). Yes! Then it will ask you what you want to call the next Printfile. This is where I suggest incrementing the filename by one, eg. KEN'STUT1, KEN'STUT2, KEN'STUT3,... If you call the file the same name, it will overwrite the original file. Changing the Printfile also wipes clean the Breakpoint so that you are at 0 again working towards that 1900 pixel variable we selected. After using the Printfile option, I strongly suggest doing a "D"ir on the disk thus making sure you have enough room for the next file.
15. Terminate... simply means what it says.
16. Okay, now that we have made all of our choices (Printfile, Dir), we are ready to "C"ontinue. After "C" is pressed we again have the crazy disk lights signaling that it's time to raid the icebox again. Repeat Steps 9 through 16, until you return to the main menu.
17. Hooray! You've now successfully Externed. So what do you do with it? Schedule it, of course. Schedule it for what? Wait a minute... Okay, okay, calm down... Insert the TPA disk into drive one and press "X" to eXit the Formatter. Once you arrive at the main TPA menu, press "4" for Scheduler.
18. I'm not going to spend too much time now on scheduling, (that's a tutorial in itself) but I will quickly tell you how to print what you've externed. Once in the Scheduler, press "M"odify. Got it? Okay, press "E"dit and enter the filename of your first Externfile, press ENTER. Now at the Row prompt, enter "100". At the Column prompt, enter "65". At Reps, enter "1". Now make sure your disk is in the drive with that file on it. Press "S" for size. Provided you had the right file on the right di-- you get the point, provided everything's okay, the second column of digits on Row and Column should read 2000 and 455. Alright! Press "D"own.
19. The screen should change to "2 Filename :", etc... Do almost the same as Step 18. Press "E"dit, enter your SECOND externfile name. At Row: 100, Column: 495, Reps: 1, then "S"ize.
20. Hopefully you were able to put BOTH (the first two) externfiles on the same disk or have two disk drives. If not, meaning you're SSSD with one drive, start warming up your fingers, you've got a lot of disk swapping to do.
21. Press "X" to eXit the Editor and return to the Scheduler menu. Set your printer print head right at perforation of the paper and press "G"o. Hopefully you should get a two-column page out of this. When the printer finishes, line up the printer again and change the files in the "M"odify option to the next two files...

Sorry about the rush job on the Scheduler, I promise in the next Tutorial to cover it much more thoroughly, which reminds me to tell you to stay tuned next time for part three of my TPA Tutorials, "I'm sorry, Miss, but I don't see it on the Schedule". Until then, happy keypunching!

LA99 USERS GROUP MARKETPLACE

May 1 1989

NAME	DISTRIBUTOR	$-SALE	CALIF TAX	MAIL USA	MAIL CAN.	MAIL EUR.	MAIL AUS.
19 ADVANCE DIAGNOSTICS	Millers Graphics	18.50	1.25	.90	.99	2.63	3.33
By Craig Miller- All of the commands to change, edit, check, copy, read, write or check the speed of a disk.							
→ 71 ARTIST BORDERS #1	Asguard Software	7.00	.46	.70	.77	1.57	1.79
By Robert Coffey- Add borders to your TI-Writer or Font Writer II pictures. 40 fancy classic borders to dress up your picture.							
→ 72 ARTIST BORDER #2	Asguard Software	7.00	.46	.70	.77	1.57	1.79
By Robert Coffey- 40 more fancy, classic, soisticated borders to dress up your flyers or certificate.							
57 ASSEMBLY DIGEST	LA99 Users Groups	2.50	.16	.70	.77	1.57	1.79
By Chick DeMarti- A collection of articles, tutorials and Programs from Newletters, magazines and books about E/A.							
→ 77 BATCH-IT	Asguard Software	18.00	1.27	.90	.99	2.06	3.33
By Beatley/Karl- Automate your programs. Program your programs like TIM, PRBase, Telco. Use M/M super space or cart.							
11 BROWSE	Genial Computerware	9.00	.59	.70	.77	1.57	1.79
By Peter Hoddie- A utility to manage text files. Print, view, combine and browse files and catalog. TI-99/4A or 9640.							
→ 73 DINOSAURS	Asguard Software	9.00	.59	.90	.99	2.06	3.33
By Ken Gilliand- Two disks set full of Dinosaurs, prehistoric backdrop, hunting licence, fonts and cartoons useing TI-Artist.							
20 DISKASSEMBLER V1.0	Millers Graphic	18.50	1.20	1.10	1.15	2.55	3.07
By Tom Freeman- Disassemble assembly language object code. A learning tool to investigate and modify codes. For the 99/4A							
→ 70 DISKASSEMBLER V2.0	T and T Software	18.50	1.20	1.10	1.15	2.55	3.07
By Tom Freeman- Disassemble assembly language object code. A learning tool to investigate and modify codes. For the 9640.							
33 DISPLAY MASTER	Inscrebot Inc.	12.00	.78	.70	.77	1.57	1.79
By Christ Faherty- Slide shows, demos, displays in sequential manner TI-Artist pictures. Provide captions.							
23 EXPLORER	Millers Graphics	20.00	1.30	1.90	2.09	3.83	4.89
By Craig Miller- Converts your 4A into a programmer's instrument. Extended Basic, Basic or Assembly Language under control.							
→ 78 EZ-KEYS PLUS	Asguard Software	14.00	.91	1.10	1.15	2.55	3.07
By Harry Wilhelm- Define marco keys as if they were little programs. Customize characters, color,and has screen dump.							
09 FIRST BASE	Genial Computerware	41.00	2.66	2.65	3.33	5.75	7.37
By Warren Agree- A data base program create, browse, query, sort, update, defines, has marco and print custom design reports.							
13 FONT PACK #1	Genial Computerware	9.00	.59	.70	.77	1.57	1.79
By Peter Hoddie- Fonts Upper or lower case, numbers and different sizes. Used with TI-Artist, GRAPHX, CSGD, FontWriter II.							
14 FONT PACK #2	Genial Computerware	9.00	.59	.70	.77	1.57	1.79
By Peter Hodie- 19 more fonts in TI-Artist format as above fonts. Both fonts #1 and Fonts #2 comes with a manual.							
34 FONT WRITER II	Asguard Software	19.00	1.24	.90	.99	2.06	3.33
By Peter Hoddie- A utility to extend the usefulness of TI-Artist. Create fonts in various sizes.							
→ 65 FORM SHOP	Comprodine	14.00	.91	.70	.77	1.57	1.79
By Roger Merritt- Create Bargraph, Maps, Calendars, Forms, Receipts, anything that require lines or boxes.							
43 FORTH BEGINNERS	LA99 Users Group	2.50	.16	.70	.77	1.57	1.79
By Chick DeMarti- An introduction manual Forth lecture to help you in understand how to program in this language.							
44 FORTH NOTES #1	LA99 Users Group	2.50	.16	.70	.77	1.57	1.79
By Chick DeMarti- A 10 page booklet of notations, comments, and hints from Newletters around the country. Vol. 1 NO. 1							
45 FORTH NOTES #2	LA99 Users group	2.50	.16	.70	.77	1.57	1.79
By Chick DeMarti- A 13 page booklett of more notations, comments and hints from Newletters around the country. Vol. 1 NO. 2							
46 FORTH NOTES #3	LA99 Users Group	2.50	.16	.70	.77	1.57	1.79
By Chick DeMarti- A 19 page booklett of more notations, comments and hints from Newletters around the country. Vol. 1 NO. 3							
47 FORTH NOTES #4	LA99 Users Group	2.50	.16	.70	.77	1.57	1.79
By Chick DeMarti- A 20 page booklett of more notations, comments and hints from Newletters around the country. Vol. 1 NO. 4							
48 FORTH NOTES #5	LA99 Users Group	2.50	.16	.70	.77	1.57	1.79
By Chick DeMarti- A 20 page booklett of more notations, comments and hints from Newletters around the country. Vol. 1 NO. 5							
49 FORTH NOTES #6	LA99 Users Group	2.50	.16	.70	.77	1.57	1.79
By Chick DeMarti- A 20 page booklett of more notations, comments and hints from Newletters around the country. Vol. 1 NO. 6							
50 FORTH NOTES [#1-#6]	LA99 Users Group	10.00	.65	2.50	2.75	5.11	6.71
By Chick DeMarti- A complete package of Forth notes Vol. 1 NO. 1, 2, 3, 4, 5 and 6. At a special price.							
→ 64 GIANT ARTIST POSTER	Comprodine	14.00	.91	.70	.77	1.57	1.79
By Paul Coleman- Print giant posters from 10 by 14 to 64 by 200. Different fonts and graphics.To be used with TI-Artist.							
15 GPL ASSEMBLER V2.1	Ryte Data	15.00	.98	.70	.77	1.57	1.79
By Michael Weiland- Assembliing of GPL programs. Reads DIS/VAR 80 files created by editor programs for EDIT1 programs.							

17 GPL LINKER	Ryte Data	15.00	.98	.70	.77	1.57	1.79
By Monty Schmidt- Designed to be use with the GPL ASSEMBLER. It allows you toload and run up to four GPL programs in RAM.							
16 GPL OPCODES	Ryte Data	15.00	.98	1.10	1.15	2.55	3.07
By H.Martin- Provides an overview of the TI-99/4A System and its internal operating system including the GPL interpreter.							
42 GPL SET (12,16,17)	Ryte Data	40.00	2.60	1.70	1.87	3.83	4.89
The complete set of GPL-Assembler, Linker, Opcodes at a special price.							
59 GPL INTERN BOOK	VTH	10.00	.65	2.65	2.97	5.11	6.71
By Heiner Martin- A soft cover book on the interworking of the 994/A GPL.							
54 GRAM KRACKER FACTS	LA99 Users Group	5.00	.33	1.10	1.15	2.55	3.07
By Mike Dodd- A 32 page booklett of articles and modification for the GRAM KACKER from Tom Freeman, Craig Miller, Walt Howe.							
06 GRAM PACKER	Genial Computerware	9.00	.59	.70	.77	1.57	1.79
By Peter Hoddie- Use with GRAM devices. Create custom menu of programs, cartriges, Writer, Term, DM1000, PR, Artist,other.							
21 GRAM UTILITY-I	Millers Graphics	10.00	.65	.50	.55	1.05	1.15
By Danny Michael- A summary to the Gram Kracker manual. Help explain the commands so you can better program the device.							
05 GRAPHICS EXPANDER	Genial Computerware	9.00	.59	.70	.77	1.57	1.79
By Peter Hoddie- Enlarge, reduce, rotate 90, vertical banners, upsidedown, convert fonts TI-Artist, CSGD, FontWriter II.							
52 HANDY REFERENCE	LA99 Users Group	2.50	.16	.70	.77	1.57	1.79
By Chick DeMarti- A 20 page guide booklett for the 99/4A from various Newletters and other sources.							
61 HARDWARE REPRINT	Chicago Users Group	6.50	.42	2.65	3.33	5.11	6.71
members- A 150 page book of hardware articles from others TI/99 Users Groups Newletters. An excellent work by Chicago U.G.							
04 HYPERCOPY	GENIAL COMPUTERWARE	16.50	1.07	.70	.77	1.57	1.79
By Mike Dodd- Fast disk copier. Copies SSSD in 35 sec. DSSD in 59 sec. Makes multiple copies with skew. For 9640							
→ 62 JIFFY CARD	Comprodine	14.00	.91	.70	.77	1.57	1.79
By Roger Merritt- Create and print a four fold professional looking greeting card. Very quickly and easily with graphics.							
→ 63 JIFFY FLYERS V3.0	Comprodine	10.00	.65	.70	.77	1.57	1.79
By Rogert Merritt- Create and print a professional looking flyer. Very quickly and easily with graphics.							
38 JOY PAINT 99	Great Lake Software	30.00	1.95	1.10	1.15	2.55	3.07
Creat your own signs, charts, diagrams, advertisements or any graphic by using a Joystick. Circles, ovals, lines, boxes etc.							
51 LOGO DIGEST	LA99 Users Group	2.50	.16	.70	.77	1.57	1.79
By Chick DeMarti- A 20 page booklett about TI-Logo II from various Newletters around the country.							
01 MAXFLIX	Genial Computerware	12.00	.78	.70	.77	1.57	1.79
By Peter Hoddie- View, print and save MacPaint graphics created by 'Macintosh' computer on your 99/4A computer.							
22 MG GAMES	Millers Graphics	18.50	1.20	.50	.55	1.05	1.15
By craig Miller- A disk full of games in assembly language.							
55 NEWLETTER BEST	LA99 Users Group	2.50	.16	.90	.99	2.06	3.33
By George Hutton- A 28 page booklet of the best articles and programs from Newletters around the world. 1985 issue.							
56 NEWLETTERS + DISK	LA99 users Group	5.00	.33	1.10	1.15	2.55	3.07
by George Hutton A 28 page booklet plus a disk of the articles and programs from Newletters around the world. 1985 issue.							
24 NIGHT MISSION	Millers Graphics	18.50	1.20	1.70	1.87	3.83	4.89
Craig Miller- A 90 page book plus diskette. Tricks and methods in programing and playing a multiple screen game.							
26 ORPHAN CHRONICILES	Millers Graphics	9.25	.60	2.30	2.53	4.67	5.79
By Ronald Albright,Jr.,M.D.- A 175 page book historical abstract of the history of the Texas Instruments 99/4A Home Computer.							
39 ORPHAN SURVIVAL BOOK	Genial Computerware	16.00	1.17	2.65	3.33	5.75	7.62
By Ronald Albright,Jr.,M.D.- A 212 page booklet containing: Helpful Reciept, Advice and other NOSTRUMS for TI 99/4A and Geneve.							
12 PC-TRANSFER	Genial Computerware	21.00	1.37	.70	.77	1.57	1.79
By Mike Dodd- Moves text files between a TI-994/A or MYRAC 9640 and an MS-DOS machine using a CorComp or MYRAC controller.							
60 PERSONAL AUDITOR	PRK DataBasic	15.00	.98	1.50	1.65	3.19	3.9[illegible]
By Willian Gaskill- 128 page booklet plus disk for a home accounting system. Collect, save, capture, report on your finances.							
40 PICTURE IT	Rogers Merritt Inc.	10.00	.65	.90	.99	2.06	3.33
By Roger Merritt- Converts, displays, view, print, or create a banner. Converts, display instances. Disk A-Z of Fonts.							
02 PICTURE TRANSFER	Genial Computerware	26.00	1.69	.70	.77	1.57	1.79
By Paul Charfton- View 5 types of graphics, create slide shows, combine images, convert between formats. for 9640.							
→ 66 PRINT-IT V3.0	Rogers Merritt Inc.	12.00	.78	.90	.99	2.09	3.33
By Roger Merritt- Create Letters, Labels small or large, Scrip, Graphics, etc. A complete package with six disks.							
→ 74 QUICK RUN	Asguard Software	9.00	.59	.70	.77	1.57	1.79
By Travis Watford- Quick run Extended Basic programs no waiting when saved to disk. No initialize waiting.							
→ 79 RAM*BOOT	Asguard Software	9.00	.59	.70	.77	1.57	1.79
By Watford/Bobbitt- A RAM disk manager Initialize, setup, execute, copy, and more automatically a Myrac 128K or 512K RAM disk.							

10 REMIND ME!	Genial Computerware	12.00	.78	.70	.77	1.57	1.79
By John Johnson- A graphic calendar with notes on any date. Helps you manage your monthly schedule. Manual + disk.							
25 SPRITE PROGRAM BOOK	Millers Graphics	6.25	.41	1.30	1.43	3.19	3.98
By Craig Miller- A 72 page book for TI-99/4 and TI-994A. A smart programming guide for sprites to help you understand sprites.							
36 STRING MASTER	ByteMaster Computer	16.00	1.04	1.50	1.65	2.94	3.98
A 19 page booklet of Assembly Language routines accessible from Extended Basic and handling macro.							
18 SUPER CLOCK SUPPORT	Ryte Data	13.50	.88	.70	.77	1.57	1.79
By Monte Schmidt- a 16 page manual + disk designed to make use of your CorComp 9900 Clock or Triple-Tech card.							
58 SUPER EXTENDED BASIC	Triton	50.00	3.25	2.65	3.95	8.31	11.26
A complete manual and Cartridge for the TI-99 computer. A greatly improved program over TI Extended Basic Cartridge.							
41 TECHNICAL DRIVE BOOK	Ryte Data	14.50	.94	2.65	3.33	5.75	7.37
ByMonty Schmidt- The secrets about TI99/4A, DSRs, Mini Memory, Corcomp Clock, Disk controller.							
31 TI ARTIST	Inscrebot Inc.	15.00	.98	.90	.99	2.06	3.33
By Chris Faherty- 20 page manual + disk V2.01-G Create high quality graphic with ease display, save or print. Joystick or key.							
32 TI ARTIST EXTRA	Inscrebot Inc.	6.00	.39	.70	.77	1.57	1.79
By Dave Rose- A flippie diskette with Characters Fonts, Conversion Program, Input Device DSR'S, Pictures and Instances.							
35 TI BASE V2.0	Inscrebote Inc.	20.00	1.30	1.50	1.65	3.19	3.98
A complete manual and two disks data base program with tutoring, Language, custom report, math and host of others features.							
27 TPA APPRECTICE	McCann Software	26.00	1.69	1.30	1.43	3.19	3.98
By Mike McCann- The TPA produces excellent cards, adds, announcements, etc. 26 page booklet with 2 disks (fonts and programs).							
28 TPA FONTS #1	McCann Software	9.95	.65	.70	.77	1.57	1.79
By Mike McCann- Disk of Fonts plus 10 page booklet displaying different fonts in this package.							
29 TPA FONTS #2	McCann Software	9.95	.65	.70	.77	1.57	1.79
By Mike McCann- Disk of more fonts. More complete instruction TPA toolbox manual.							
30 TPA TOOLBOX	McCann Software	19.50	1.27	1.10	1.15	2.55	3.07
By Mike McCann- A 20 page booklet and two disks package. Provides access to various programs in the TPA system.							
03 TRIAD	Genial Computerware	16.50	1.07	.70	.77	1.59	1.79
Wayne Stith- A Terminal Emulator (300,1200,2400), Configuration, Disk Manger and 40 column test editor. TI-99/4A or 9640.							
→ **75 TYPEWRITER 99 #1**	Asguard Software	14.00	.91	.70	.77	1.59	1.79
By Jim Reiss- Turns your TI-99/4A and printer into a typewriter easier than word processors. Requires E/A or TIW, 32K, DISK.							
→ **76 TYPEWRITER 99 #2**	Asguard Software	22.00	1.43	1.10	1.15	2.55	3.07
By Jim Reiss- Turns your TI-99/4A and printer into a typewriter. Requires Typewriter-99 Module.							
53 UTILITY PROGRAMS	LA99 USERS GROUP	8.00	.52	1.30	1.43	3.19	3.98
By Tom Freeman- A 37 page booklet and disk. Quad Col, print sideways, variable col, call load, checksum, disk/tape, etc.							
07 XBASHER	Genial Computerware	9.00	.59	.70	.77	1.57	1.79
By Mike Dodd- Reduces the size of Extended Basic programs. Shorten variable and names, removes REM and !. TI-99/4A or 9640.							
08 XB-BUG	Genial Computerware	12.00	.78	.70	.77	1.57	1.79
By Peter Hoddie- A debugging tool for Extended Basic programmer. View and modify variable value, search, display TI99/9640.							

ITEMS MARKED WITH ARROWS ARE NEW →

LA99/4A LIBRARY CORNER

Disks $2.00 **each** not programs. Many programs takes more than one di
If you have a **SSSD** drive be sure you get all the disks needed t
the program usally **both A** and **B** disk if the program is over 360 s
(if available). That comes to $2.00 **each** other wise get the DSSD disk.
It pays to have a DSSD drive. And dont't forget to include postage if
you want it mailed $0.25 for each disk.

0000 **LA99/4A DISKS LIBRARY CATALOG** APR. 89 : $1.00 either DSSD(699)
or 0000A(343) and 0000B(349) Special offering.

NEW ADDS FOR MAY LA99/4A LIBRARY

The Library Committee wish to give thanks to those who donated disks t
our Library this month: Jim McLaren, Ted Yox, Steve Mehr.

NEW ADDS MAY LA99/4A LIBRARY

2464 **MAC LABELS** By Ed and Mike Machonis: Over 20 different type of labels programs. Such as for oil change, bumper sticker, banner, letterhead, return address, tags, disk, catalog, mail, flex, name, etc. Plus 16 CTRL/FCTN strip for computer. SSSD(329).

2465 **NX-1000** By Charles Ball : Set the NX-1000 printer Subscrip, Supersubscrip, Dbl/strike, Dbl/width, Italics. Standard, Emphasized, Initialize, Line/inch, underline, Margin and many more. Plus several short typing programs with word count. SSSD(162)

2677 **DM1000 GK3** By Tom Lidstone: Updated DM1000 (can run a program from file utilities plus many more additions). SMGR/III will load this program into the Gram Kracker via X/B. SSSD(162).

2848 **DSR** By John Johnson : A utility for saving and loading DSK'S for the TI99/4A. Useful for epron burners or saving a horizon operating system. SSSD(125).

4479 **THE BEST OF 99er I** 7 X/B Programs from HCM tapes.: BATTLESTAR, DODGE'EM, FORCE/1, INTERPLANTETARY RESCURE, SPRITE CHASE, SPRITER and VERBOSE SSSD(158).

4480 **THE BEST OF 99er II** 10 Basic programs from HCM tapes: ANTI AIR GUN, CHUCK LUCK, COLOR/MAP, COUNTRY FAIR, HOME SECRETARY, INTERFORMS, MAZERACE, OTHELLO, RULE OF 78 and SPACE WAR. SSSD(315).

4481 **THE BEST OF 99er III** 10 Basic programs from HCM tapes: BLOCK LETTERS, COUNTING, DIVISION, HOUSE WIFE, MUSIC/EDIT, MUSIC/FILE, MYSTERY, NAME THAT BONE, TOURIST and TYPING SSSD(319).

5049 **JAPANESE** Fairware by Don Shorock: A disk full of Japanese programs. Hiragana, Katakana, Kanji. Learn to speach and write Japanese. SSSD(359)

5050 **NUCLEAR 99** Fairware by Scott Morrow. The Theory and operation of a steam nuclear type reactor with the plant diagram and status report.SSSD(149).

7064 **MUSIC #50** From Boston Computer Society: 12 music programs some with graphic. CHORAL, FUGUE, TRUMPET, PRELUDE, BEETHOVER, LUDWIG/MMM, MOONLIGHT, MORNING, MUSIC BOX, TOCATTA, TI-DEMO and the SCALES. SSSD(332).

8128 **CAPTIONS ACT** I By Stephen Andrews: 100 finished captions.Use TI Artist. DSSD(720).

8129 **CAPTIONS ACT II** By Stephen Andrews: 100 more finished captions. Use TI Artist. DSSD(713).

9090 **BHXP** By Bruce Hellstrom: Fly the Experimental BHXP1 aircraft with a Joystick. E/A #5. Takeoff, in flight, landing. DSSD(385).

FRED MOORE 7730 EMERSON AVE LOS ANGELES CA 90045 213 670 4293